Hall Reply Declaration Exhibit D

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compare two versions of QSI_Electric

JMRI version and date:
Line 7:   <version author="Howard G. Penny" version="1" lastUpdated="20050616"/>
KAM version and date:
Line 4:   <DATE_MODIFIED>20050616</DATE_MODIFIED>
Line 7:        <TPL_VERSION>1</TPL_VERSION>


Variable named: Primary Address
 JMRI line 20:     <variable label="Primary Address" CV="1" comment="Short address"
  KAM line 36:            <NAME>Primary Address</NAME>

Variable named: Vstart
 JMRI line 23:     <variable label="Vstart" CV="2" default="32"
  KAM line 56:            <NAME>Vstart</NAME>

Variable named: Acceleration Rate
 JMRI line 27:     <variable label="Acceleration Rate" CV="3" item="Accel" >
  KAM line 76:            <NAME>Acceleration Rate</NAME>

Variable named: Deceleration Rate
 JMRI line 29:     <variable label="Deceleration Rate" CV="4" item="Decel">
  KAM line 96:            <NAME>Deceleration Rate</NAME>

Variable named: Max Volts
 JMRI line 31:     <variable label="Max Volts" CV="5" item="Vhigh" default="1"
  KAM line 116:             <NAME>Max Volts</NAME>

Variable named: Manufacturer Version No
 JMRI line 35:     <variable label="Manufacturer Version No" CV="7" readOnly="yes"
  KAM line 136:            <NAME>Manufacturer Version No</NAME>

Variable named: Manufacturer ID
 JMRI line 37:     <variable label="Manufacturer ID" CV="8" readOnly="yes"
  KAM line 156:            <NAME>Manufacturer ID</NAME>

Variable named: Packet Time-out Value
 JMRI line 40:     <variable label="Packet Time-out Value" CV="11">
  KAM line 176:             <NAME>Packet Time-out Value</NAME>

Variable named: Extended Address
 JMRI line 43:     <variable label="Extended Address" CV="17" item="Long Address" >
  KAM line 196:             <NAME>Extended Address</NAME>

Variable named: Consist Address
 JMRI line 46:     <variable label="Consist Address" CV="19" mask="XVVVVVVV" item="Consist
Address">
  KAM line 216:             <NAME>Consist Address</NAME>

Variable named: Consist Address Active For F1
 JMRI line 55:     <variable label="Consist Address Active For F1" CV="21" mask="XXXXXXXV"
  KAM line 236:            <NAME>Consist Address Active For F1</NAME>

Variable named: Consist Address Active For FL in Forward
 JMRI line 104:      <variable label="Consist Address Active For FL in Forward" CV="22"
mask="XXXXXXXV"
  KAM line 256:             <NAME>Consist Address Active For FL in Forward</NAME>
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Variable named: Consist Acceleration Adjustment
 JMRI line 141:      <variable label="Consist Acceleration Adjustment" CV="23" mask="XVVVVVVV">
  KAM line 276:            <NAME>Consist Acceleration Adjustment</NAME>


Variable named: Consist Deceleration Adjustment
 JMRI line 149:      <variable label="Consist Deceleration Adjustment" CV="24" mask="XVVVVVVV">
  KAM line 296:            <NAME>Consist Deceleration Adjustment</NAME>


Variable named: Quantum Speed Table
 JMRI line 158:      <variable label="Quantum Speed Table" CV="25" item="Speed Table Selection"
  KAM line 316:            <NAME>Quantum Speed Table</NAME>
   selection "User Defined Speed Table"
      JMRI line 161:         <enumChoice choice="User Defined Speed Table" value="1"/>
       KAM line 331:            <BitName>User Defined Speed Table</BitName>
   selection "Linear Curve"
      JMRI line 162:         <enumChoice choice="Linear Curve"/>
       KAM line 332:            <BitName>Linear Curve</BitName>
   selection "Fast start 1 (close to linear)"
      JMRI line 163:         <enumChoice choice="Fast start 1 (close to linear)"/>
       KAM line 333:            <BitName>Fast start 1 (close to linear)</BitName>
   selection "Fast start 2"
      JMRI line 164:         <enumChoice choice="Fast start 2"/>
       KAM line 334:            <BitName>Fast start 2</BitName>
   selection "Fast start 3"
      JMRI line 165:         <enumChoice choice="Fast start 3"/>
       KAM line 335:            <BitName>Fast start 3</BitName>
   selection "Fast start 4"
      JMRI line 166:         <enumChoice choice="Fast start 4"/>
       KAM line 336:            <BitName>Fast start 4</BitName>
   selection "Fast start 5 (greatest curvature)"
      JMRI line 167:         <enumChoice choice="Fast start 5 (greatest curvature)"/>
       KAM line 337:            <BitName>Fast start 5 (greatest curvature)</BitName>
   selection "Slow start 1 (close to linear)"
      JMRI line 168:         <enumChoice choice="Slow start 1 (close to linear)" value="67"/>
       KAM line 338:            <BitName>Slow start 1 (close to linear)</BitName>
   selection "Slow start 2"
      JMRI line 169:         <enumChoice choice="Slow start 2"/>
       KAM line 339:            <BitName>Slow start 2</BitName>
   selection "Slow start 3"
      JMRI line 170:         <enumChoice choice="Slow start 3"/>
       KAM line 340:            <BitName>Slow start 3</BitName>
   selection "Slow start 4"
      JMRI line 171:         <enumChoice choice="Slow start 4"/>
       KAM line 341:            <BitName>Slow start 4</BitName>
   selection "Slow start 5 (greatest curavture"
      JMRI line 172:         <enumChoice choice="Slow start 5 (greatest curavture"/>
       KAM line 342:            <BitName>Slow start 5 (greatest curavture</BitName>


Variable named: Locomotive Direction
 JMRI line 176:      <variable label="Locomotive Direction" CV="29" mask="XXXXXXXV">
  KAM line 349:            <NAME>Locomotive Direction</NAME>


Variable named: FL(f) controls output 1
 JMRI line 212:      <variable label="FL(f) controls output 1" CV="33" mask="XXXXXXXV" minOut="1"
default="1"> <enumVal>
  KAM line 369:            <NAME>FL(f) controls output 1</NAME>


Variable named: FL(r) controls output 1
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 JMRI line 229:     <variable label="FL(r) controls output 1" CV="34" mask="XXXXXXXV" minOut="1"
default="1"> <enumVal>
   KAM line 389:           <NAME>FL(r) controls output 1</NAME>


Variable named: F1 controls output 1
 JMRI line 246:     <variable label="F1 controls output 1" CV="35" mask="XXXXXXXV" minOut="1"
minFn="1"> <enumVal>
   KAM line 409:           <NAME>F1 controls output 1</NAME>


Variable named: F2 controls output 1
 JMRI line 263:     <variable label="F2 controls output 1" CV="36" mask="XXXXXXXV" minOut="1"
minFn="2"> <enumVal>
   KAM line 429:           <NAME>F2 controls output 1</NAME>


Variable named: F3 controls output 1
 JMRI line 280:     <variable label="F3 controls output 1" CV="37" mask="XXXXXXXV" minOut="1"
minFn="3"> <enumVal>
   KAM line 449:           <NAME>F3 controls output 1</NAME>


Variable named: F4 controls output 4
 JMRI line 297:     <variable label="F4 controls output 4" CV="38" mask="XXXXXXXV" minOut="4"
minFn="4"> <enumVal>
   KAM line 469:           <NAME>F4 controls output 4</NAME>


Variable named: F5 controls output 4
 JMRI line 314:     <variable label="F5 controls output 4" CV="39" mask="XXXXXXXV" minOut="4"
minFn="5"> <enumVal>
   KAM line 489:           <NAME>F5 controls output 4</NAME>


Variable named: F6 controls output 4
 JMRI line 331:     <variable label="F6 controls output 4" CV="40" mask="XXXXXXXV" minOut="4"
minFn="6"> <enumVal>
   KAM line 509:           <NAME>F6 controls output 4</NAME>


Variable named: F7 controls output 4
 JMRI line 348:     <variable label="F7 controls output 4" CV="41" mask="XXXXXXXV" minOut="4"
minFn="7"> <enumVal>
   KAM line 529:           <NAME>F7 controls output 4</NAME>


Variable named: F8 controls output 4
 JMRI line 365:     <variable label="F8 controls output 4" CV="42" mask="XXXXXXXV" minOut="4"
minFn="8"> <enumVal>
   KAM line 549:           <NAME>F8 controls output 4</NAME>


Variable named: F9 controls output 7
 JMRI line 382:     <variable label="F9 controls output 7" CV="43" mask="XXXXXXXV" minOut="7"
minFn="9"> <enumVal>
   KAM line 569:           <NAME>F9 controls output 7</NAME>


Variable named: F10 controls output 7
 JMRI line 399:     <variable label="F10 controls output 7" CV="44" mask="XXXXXXXV" minOut="7"
minFn="10"> <enumVal>
   KAM line 589:           <NAME>F10 controls output 7</NAME>


Variable named: F11 controls output 7
 JMRI line 416:     <variable label="F11 controls output 7" CV="45" mask="XXXXXXXV" minOut="7"
minFn="11"> <enumVal>
   KAM line 609:           <NAME>F11 controls output 7</NAME>
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Variable named: F12 controls output 7
 JMRI line 433:      <variable label="F12 controls output 7" CV="46" mask="XXXXXXXV" minOut="7"
minFn="12"> <enumVal>
  KAM line 629:                <NAME>F12 controls output 7</NAME>


Variable named: System Volume
 JMRI line 482:      <ivariable label="System Volume" CVname="51.0" CV="51" PI="0" default="127"
comment="QSI" item="CV51.0">
  KAM line 649:                <NAME>System Volume</NAME>


Variable named: Horn
 JMRI line 495:      <ivariable label="Horn" CVname="52.0" CV="52" PI="0" default="11"
comment="QSI" item="CV52.0">
  KAM line 669:                <NAME>Horn</NAME>


Variable named: Outout 10 - Forward/Reverse Only
 JMRI line 849:      <ivariable label="Outout 10 - Forward/Reverse Only" CVname="53.10.0" CV="53"
PI="10" SI="0">
  KAM line 689:                <NAME>Outout 10 - Forward/Reverse Only</NAME>
   selection "Dynamic Brakes"
     JMRI line 852:        <ienumChoice choice="Dynamic Brakes" value="5"/>
      KAM line 704:            <BitName>Dynamic Brakes</BitName>
   selection "Long Air Let-off"
     JMRI line 853:        <ienumChoice choice="Long Air Let-off" value="9"/>
      KAM line 705:            <BitName>Long Air Let-off</BitName>
   selection "Short Air Let-off"
     JMRI line 854:        <ienumChoice choice="Short Air Let-off"/>
      KAM line 706:            <BitName>Short Air Let-off</BitName>
   selection "Mute"
     JMRI line 855:        <ienumChoice choice="Mute" value="64"/>
      KAM line 707:            <BitName>Mute</BitName>
   selection "Doppler Shift"
     JMRI line 856:        <ienumChoice choice="Doppler Shift"/>
      KAM line 708:            <BitName>Doppler Shift</BitName>
   selection "Headlight"
     JMRI line 857:        <ienumChoice choice="Headlight" value="98"/>
      KAM line 709:            <BitName>Headlight</BitName>
   selection "Dim Headlight"
     JMRI line 858:        <ienumChoice choice="Dim Headlight"/>
      KAM line 710:            <BitName>Dim Headlight</BitName>
   selection "Reverse Light"
     JMRI line 859:        <ienumChoice choice="Reverse Light"/>
      KAM line 711:            <BitName>Reverse Light</BitName>
   selection "Automatic Cab Lights"
     JMRI line 860:        <ienumChoice choice="Automatic Cab Lights"/>
      KAM line 712:            <BitName>Automatic Cab Lights</BitName>
   selection "Directional Mars Light"
     JMRI line 861:        <ienumChoice choice="Directional Mars Light"/>
      KAM line 713:            <BitName>Directional Mars Light</BitName>
   selection "Mars Light"
     JMRI line 861:        <ienumChoice choice="Directional Mars Light"/>
      KAM line 714:            <BitName>Mars Light</BitName>
   selection "Strobe Mars Light"
     JMRI line 863:        <ienumChoice choice="Strobe Mars Light"/>
      KAM line 715:            <BitName>Strobe Mars Light</BitName>
   selection "Number Board Lights"
     JMRI line 864:        <ienumChoice choice="Number Board Lights"/>
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        KAM line 716:               <BitName>Number Board Lights</BitName>
    selection "Directional Headlight + Directional Mars Light"
        JMRI line 865:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
        KAM line 717:               <BitName>Directional Headlight + Directional Mars
Light</BitName>
    selection "Directional Headlight + Directional Ditch Lights"
        JMRI line 866:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 718:               <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
    selection "Directional Ditch Lights"
        JMRI line 866:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 719:               <BitName>Directional Ditch Lights</BitName>
    selection "Ditch Lights"
        JMRI line 866:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 720:               <BitName>Ditch Lights</BitName>
    selection "Stobe Ditch Lights"
        JMRI line 869:          <ienumChoice choice="Stobe Ditch Lights"/>
        KAM line 721:               <BitName>Stobe Ditch Lights</BitName>
    selection "Cruise Control"
        JMRI line 870:          <ienumChoice choice="Cruise Control" value="177"/>
        KAM line 722:               <BitName>Cruise Control</BitName>
    selection "Scale mph Report and Status Report"
        JMRI line 871:          <ienumChoice choice="Scale mph Report and Status Report"/>
        KAM line 723:               <BitName>Scale mph Report and Status Report</BitName>
    selection "Coupler Effect"
        JMRI line 872:          <ienumChoice choice="Coupler Effect" value="211"/>
        KAM line 724:               <BitName>Coupler Effect</BitName>
    selection "Squealing Brakes"
        JMRI line 873:          <ienumChoice choice="Squealing Brakes" value="215"/>
        KAM line 725:               <BitName>Squealing Brakes</BitName>
    selection "Squealing Brakes + Air Brakes"
        JMRI line 874:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
        KAM line 726:               <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  – Neutral Only
 JMRI line 522:      <ivariable label=" – Neutral Only" CVname="53.1.1" CV="53" PI="1" SI="1"
  KAM line 733:             <NAME> – Neutral Only</NAME>

Variable named: Outout 11 – Forward/Reverse Only
 JMRI line 905:      <ivariable label="Outout 11 – Forward/Reverse Only" CVname="53.11.0" CV="53"
PI="11" SI="0"
  KAM line 776:             <NAME>Outout 11 – Forward/Reverse Only</NAME>
    selection "Dynamic Brakes"
        JMRI line 908:          <ienumChoice choice="Dynamic Brakes" value="5"/>
        KAM line 791:               <BitName>Dynamic Brakes</BitName>
    selection "Long Air Let-off"
        JMRI line 909:          <ienumChoice choice="Long Air Let-off" value="9"/>
        KAM line 792:               <BitName>Long Air Let-off</BitName>
    selection "Short Air Let-off"
        JMRI line 910:          <ienumChoice choice="Short Air Let-off"/>
        KAM line 793:               <BitName>Short Air Let-off</BitName>
    selection "Mute"
        JMRI line 911:          <ienumChoice choice="Mute" value="64"/>
        KAM line 794:               <BitName>Mute</BitName>
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   selection "Doppler Shift"
      JMRI line 912:          <ienumChoice choice="Doppler Shift"/>
       KAM line 795:              <BitName>Doppler Shift</BitName>
   selection "Headlight"
      JMRI line 913:          <ienumChoice choice="Headlight" value="98"/>
       KAM line 796:              <BitName>Headlight</BitName>
   selection "Dim Headlight"
      JMRI line 914:          <ienumChoice choice="Dim Headlight"/>
       KAM line 797:              <BitName>Dim Headlight</BitName>
   selection "Reverse Light"
      JMRI line 915:          <ienumChoice choice="Reverse Light"/>
       KAM line 798:              <BitName>Reverse Light</BitName>
   selection "Automatic Cab Lights"
      JMRI line 916:          <ienumChoice choice="Automatic Cab Lights"/>
       KAM line 799:              <BitName>Automatic Cab Lights</BitName>
   selection "Directional Mars Light"
      JMRI line 917:          <ienumChoice choice="Directional Mars Light"/>
       KAM line 800:              <BitName>Directional Mars Light</BitName>
   selection "Mars Light"
      JMRI line 917:          <ienumChoice choice="Directional Mars Light"/>
       KAM line 801:              <BitName>Mars Light</BitName>
   selection "Strobe Mars Light"
      JMRI line 919:          <ienumChoice choice="Strobe Mars Light"/>
       KAM line 802:              <BitName>Strobe Mars Light</BitName>
   selection "Number Board Lights"
      JMRI line 920:          <ienumChoice choice="Number Board Lights"/>
       KAM line 803:              <BitName>Number Board Lights</BitName>
   selection "Directional Headlight + Directional Mars Light"
      JMRI line 921:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
       KAM line 804:              <BitName>Directional Headlight + Directional Mars
Light</BitName>
   selection "Directional Headlight + Directional Ditch Lights"
      JMRI line 922:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
       KAM line 805:              <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
   selection "Directional Ditch Lights"
      JMRI line 922:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
       KAM line 806:              <BitName>Directional Ditch Lights</BitName>
   selection "Ditch Lights"
      JMRI line 922:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
       KAM line 807:              <BitName>Ditch Lights</BitName>
   selection "Stobe Ditch Lights"
      JMRI line 925:          <ienumChoice choice="Stobe Ditch Lights"/>
       KAM line 808:              <BitName>Stobe Ditch Lights</BitName>
   selection "Cruise Control"
      JMRI line 926:          <ienumChoice choice="Cruise Control" value="177"/>
       KAM line 809:              <BitName>Cruise Control</BitName>
   selection "Scale mph Report and Status Report"
      JMRI line 927:          <ienumChoice choice="Scale mph Report and Status Report"/>
       KAM line 810:              <BitName>Scale mph Report and Status Report</BitName>
   selection "Coupler Effect"
      JMRI line 928:          <ienumChoice choice="Coupler Effect" value="211"/>
       KAM line 811:              <BitName>Coupler Effect</BitName>
   selection "Squealing Brakes"
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     JMRI line 929:          <ienumChoice choice="Squealing Brakes" value="215"/>
      KAM line 812:              <BitName>Squealing Brakes</BitName>
   selection "Squealing Brakes + Air Brakes"
     JMRI line 930:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
      KAM line 813:              <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  - Neutral Only
 JMRI line 535:      <ivariable label=" - Neutral Only" CVname="53.2.1" CV="53" PI="2" SI="1"
  KAM line 820:              <NAME> - Neutral Only</NAME>

Variable named: Outout 9 - Forward/Reverse Only
 JMRI line 793:      <ivariable label="Outout 9 - Forward/Reverse Only" CVname="53.9.0" CV="53"
PI="9" SI="0"
  KAM line 863:              <NAME>Outout 9 - Forward/Reverse Only</NAME>
   selection "Dynamic Brakes"
     JMRI line 796:          <ienumChoice choice="Dynamic Brakes" value="5"/>
      KAM line 878:              <BitName>Dynamic Brakes</BitName>
   selection "Long Air Let-off"
     JMRI line 797:          <ienumChoice choice="Long Air Let-off" value="9"/>
      KAM line 879:              <BitName>Long Air Let-off</BitName>
   selection "Short Air Let-off"
     JMRI line 798:          <ienumChoice choice="Short Air Let-off"/>
      KAM line 880:              <BitName>Short Air Let-off</BitName>
   selection "Mute"
     JMRI line 799:          <ienumChoice choice="Mute" value="64"/>
      KAM line 881:              <BitName>Mute</BitName>
   selection "Doppler Shift"
     JMRI line 800:          <ienumChoice choice="Doppler Shift"/>
      KAM line 882:              <BitName>Doppler Shift</BitName>
   selection "Headlight"
     JMRI line 801:          <ienumChoice choice="Headlight" value="98"/>
      KAM line 883:              <BitName>Headlight</BitName>
   selection "Dim Headlight"
     JMRI line 802:          <ienumChoice choice="Dim Headlight"/>
      KAM line 884:              <BitName>Dim Headlight</BitName>
   selection "Reverse Light"
     JMRI line 803:          <ienumChoice choice="Reverse Light"/>
      KAM line 885:              <BitName>Reverse Light</BitName>
   selection "Automatic Cab Lights"
     JMRI line 804:          <ienumChoice choice="Automatic Cab Lights"/>
      KAM line 886:              <BitName>Automatic Cab Lights</BitName>
   selection "Directional Mars Light"
     JMRI line 805:          <ienumChoice choice="Directional Mars Light"/>
      KAM line 887:              <BitName>Directional Mars Light</BitName>
   selection "Mars Light"
     JMRI line 805:          <ienumChoice choice="Directional Mars Light"/>
      KAM line 888:              <BitName>Mars Light</BitName>
   selection "Strobe Mars Light"
     JMRI line 807:          <ienumChoice choice="Strobe Mars Light"/>
      KAM line 889:              <BitName>Strobe Mars Light</BitName>
   selection "Number Board Lights"
     JMRI line 808:          <ienumChoice choice="Number Board Lights"/>
      KAM line 890:              <BitName>Number Board Lights</BitName>
   selection "Directional Headlight + Directional Mars Light"
     JMRI line 809:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
      KAM line 891:              <BitName>Directional Headlight + Directional Mars
Light</BitName>
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     selection "Directional Headlight + Directional Ditch Lights"
        JMRI line 810:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 892:              <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
     selection "Directional Ditch Lights"
        JMRI line 810:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 893:              <BitName>Directional Ditch Lights</BitName>
     selection "Ditch Lights"
        JMRI line 810:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 894:              <BitName>Ditch Lights</BitName>
     selection "Stobe Ditch Lights"
        JMRI line 813:          <ienumChoice choice="Stobe Ditch Lights"/>
        KAM line 895:              <BitName>Stobe Ditch Lights</BitName>
     selection "Cruise Control"
        JMRI line 814:          <ienumChoice choice="Cruise Control" value="177"/>
        KAM line 896:              <BitName>Cruise Control</BitName>
     selection "Scale mph Report and Status Report"
        JMRI line 815:          <ienumChoice choice="Scale mph Report and Status Report"/>
        KAM line 897:              <BitName>Scale mph Report and Status Report</BitName>
     selection "Coupler Effect"
        JMRI line 816:          <ienumChoice choice="Coupler Effect" value="211"/>
        KAM line 898:              <BitName>Coupler Effect</BitName>
     selection "Squealing Brakes"
        JMRI line 817:          <ienumChoice choice="Squealing Brakes" value="215"/>
        KAM line 899:              <BitName>Squealing Brakes</BitName>
     selection "Squealing Brakes + Air Brakes"
        JMRI line 818:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
        KAM line 900:              <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  - Neutral Only
 JMRI line 548:       <ivariable label=" - Neutral Only" CVname="53.3.1" CV="53" PI="3" SI="1"
  KAM line 907:              <NAME> - Neutral Only</NAME>

Variable named:  - Neutral Only
 JMRI line 562:       <ivariable label=" - Neutral Only" CVname="53.4.1" CV="53" PI="4" SI="1"
  KAM line 950:              <NAME> - Neutral Only</NAME>

Variable named:  - Neutral Only
 JMRI line 597:       <ivariable label=" - Neutral Only" CVname="53.5.1" CV="53" PI="5" SI="1"
  KAM line 993:              <NAME> - Neutral Only</NAME>

Variable named: Outout 14 - Forward/Reverse Only
 JMRI line 1073:      <ivariable label="Outout 14 - Forward/Reverse Only" CVname="53.14.0"
CV="53" PI="14" SI="0"
  KAM line 1036:              <NAME>Outout 14 - Forward/Reverse Only</NAME>
     selection "Dynamic Brakes"
        JMRI line 1076:         <ienumChoice choice="Dynamic Brakes" value="5"/>
        KAM line 1051:              <BitName>Dynamic Brakes</BitName>
     selection "Long Air Let-off"
        JMRI line 1077:         <ienumChoice choice="Long Air Let-off" value="9"/>
        KAM line 1052:              <BitName>Long Air Let-off</BitName>
     selection "Short Air Let-off"
        JMRI line 1078:         <ienumChoice choice="Short Air Let-off"/>
        KAM line 1053:              <BitName>Short Air Let-off</BitName>
     selection "Mute"
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     JMRI line 1079:        <ienumChoice choice="Mute" value="64"/>
      KAM line 1054:            <BitName>Mute</BitName>
   selection "Doppler Shift"
     JMRI line 1080:        <ienumChoice choice="Doppler Shift"/>
      KAM line 1055:            <BitName>Doppler Shift</BitName>
   selection "Headlight"
     JMRI line 1081:        <ienumChoice choice="Headlight" value="98"/>
      KAM line 1056:            <BitName>Headlight</BitName>
   selection "Dim Headlight"
     JMRI line 1082:        <ienumChoice choice="Dim Headlight"/>
      KAM line 1057:            <BitName>Dim Headlight</BitName>
   selection "Reverse Light"
     JMRI line 1083:        <ienumChoice choice="Reverse Light"/>
      KAM line 1058:            <BitName>Reverse Light</BitName>
   selection "Automatic Cab Lights"
     JMRI line 1084:        <ienumChoice choice="Automatic Cab Lights"/>
      KAM line 1059:            <BitName>Automatic Cab Lights</BitName>
   selection "Directional Mars Light"
     JMRI line 1085:        <ienumChoice choice="Directional Mars Light"/>
      KAM line 1060:            <BitName>Directional Mars Light</BitName>
   selection "Mars Light"
     JMRI line 1085:        <ienumChoice choice="Directional Mars Light"/>
      KAM line 1061:            <BitName>Mars Light</BitName>
   selection "Strobe Mars Light"
     JMRI line 1087:        <ienumChoice choice="Strobe Mars Light"/>
      KAM line 1062:            <BitName>Strobe Mars Light</BitName>
   selection "Number Board Lights"
     JMRI line 1088:        <ienumChoice choice="Number Board Lights"/>
      KAM line 1063:            <BitName>Number Board Lights</BitName>
   selection "Directional Headlight + Directional Mars Light"
     JMRI line 1089:        <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
      KAM line 1064:            <BitName>Directional Headlight + Directional Mars
Light</BitName>
   selection "Directional Headlight + Directional Ditch Lights"
     JMRI line 1090:        <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
      KAM line 1065:            <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
   selection "Directional Ditch Lights"
     JMRI line 1090:        <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
      KAM line 1066:            <BitName>Directional Ditch Lights</BitName>
   selection "Ditch Lights"
     JMRI line 1090:        <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
      KAM line 1067:            <BitName>Ditch Lights</BitName>
   selection "Stobe Ditch Lights"
     JMRI line 1093:        <ienumChoice choice="Stobe Ditch Lights"/>
      KAM line 1068:            <BitName>Stobe Ditch Lights</BitName>
   selection "Cruise Control"
     JMRI line 1094:        <ienumChoice choice="Cruise Control" value="177"/>
      KAM line 1069:            <BitName>Cruise Control</BitName>
   selection "Scale mph Report and Status Report"
     JMRI line 1095:        <ienumChoice choice="Scale mph Report and Status Report"/>
      KAM line 1070:            <BitName>Scale mph Report and Status Report</BitName>
   selection "Coupler Effect"
     JMRI line 1096:        <ienumChoice choice="Coupler Effect" value="211"/>
```

```
        KAM line 1071:              <BitName>Coupler Effect</BitName>
    selection "Squealing Brakes"
        JMRI line 1097:           <ienumChoice choice="Squealing Brakes" value="215"/>
        KAM line 1072:              <BitName>Squealing Brakes</BitName>
    selection "Squealing Brakes + Air Brakes"
        JMRI line 1098:           <ienumChoice choice="Squealing Brakes + Air Brakes"/>
        KAM line 1073:              <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  - Neutral Only
 JMRI line 653:      <ivariable label=" - Neutral Only" CVname="53.6.1" CV="53" PI="6" SI="1"
  KAM line 1080:             <NAME> - Neutral Only</NAME>

Variable named: Outout 12 - Forward/Reverse Only
 JMRI line 961:      <ivariable label="Outout 12 - Forward/Reverse Only" CVname="53.12.0" CV="53"
PI="12" SI="0"
  KAM line 1123:             <NAME>Outout 12 - Forward/Reverse Only</NAME>
    selection "Dynamic Brakes"
        JMRI line 964:            <ienumChoice choice="Dynamic Brakes" value="5"/>
        KAM line 1138:              <BitName>Dynamic Brakes</BitName>
    selection "Long Air Let-off"
        JMRI line 965:            <ienumChoice choice="Long Air Let-off" value="9"/>
        KAM line 1139:              <BitName>Long Air Let-off</BitName>
    selection "Short Air Let-off"
        JMRI line 966:            <ienumChoice choice="Short Air Let-off"/>
        KAM line 1140:              <BitName>Short Air Let-off</BitName>
    selection "Mute"
        JMRI line 967:            <ienumChoice choice="Mute" value="64"/>
        KAM line 1141:              <BitName>Mute</BitName>
    selection "Doppler Shift"
        JMRI line 968:            <ienumChoice choice="Doppler Shift"/>
        KAM line 1142:              <BitName>Doppler Shift</BitName>
    selection "Headlight"
        JMRI line 969:            <ienumChoice choice="Headlight" value="98"/>
        KAM line 1143:              <BitName>Headlight</BitName>
    selection "Dim Headlight"
        JMRI line 970:            <ienumChoice choice="Dim Headlight"/>
        KAM line 1144:              <BitName>Dim Headlight</BitName>
    selection "Reverse Light"
        JMRI line 971:            <ienumChoice choice="Reverse Light"/>
        KAM line 1145:              <BitName>Reverse Light</BitName>
    selection "Automatic Cab Lights"
        JMRI line 972:            <ienumChoice choice="Automatic Cab Lights"/>
        KAM line 1146:              <BitName>Automatic Cab Lights</BitName>
    selection "Directional Mars Light"
        JMRI line 973:            <ienumChoice choice="Directional Mars Light"/>
        KAM line 1147:              <BitName>Directional Mars Light</BitName>
    selection "Mars Light"
        JMRI line 973:            <ienumChoice choice="Directional Mars Light"/>
        KAM line 1148:              <BitName>Mars Light</BitName>
    selection "Strobe Mars Light"
        JMRI line 975:            <ienumChoice choice="Strobe Mars Light"/>
        KAM line 1149:              <BitName>Strobe Mars Light</BitName>
    selection "Number Board Lights"
        JMRI line 976:            <ienumChoice choice="Number Board Lights"/>
        KAM line 1150:              <BitName>Number Board Lights</BitName>
    selection "Directional Headlight + Directional Mars Light"
        JMRI line 977:            <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
```

```
        KAM line 1151:                <BitName>Directional Headlight + Directional Mars
Light</BitName>
    selection "Directional Headlight + Directional Ditch Lights"
        JMRI line 978:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1152:                <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
    selection "Directional Ditch Lights"
        JMRI line 978:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1153:                <BitName>Directional Ditch Lights</BitName>
    selection "Ditch Lights"
        JMRI line 978:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1154:                <BitName>Ditch Lights</BitName>
    selection "Stobe Ditch Lights"
        JMRI line 981:          <ienumChoice choice="Stobe Ditch Lights"/>
        KAM line 1155:                <BitName>Stobe Ditch Lights</BitName>
    selection "Cruise Control"
        JMRI line 982:          <ienumChoice choice="Cruise Control" value="177"/>
        KAM line 1156:                <BitName>Cruise Control</BitName>
    selection "Scale mph Report and Status Report"
        JMRI line 983:          <ienumChoice choice="Scale mph Report and Status Report"/>
        KAM line 1157:                <BitName>Scale mph Report and Status Report</BitName>
    selection "Coupler Effect"
        JMRI line 984:          <ienumChoice choice="Coupler Effect" value="211"/>
        KAM line 1158:                <BitName>Coupler Effect</BitName>
    selection "Squealing Brakes"
        JMRI line 985:          <ienumChoice choice="Squealing Brakes" value="215"/>
        KAM line 1159:                <BitName>Squealing Brakes</BitName>
    selection "Squealing Brakes + Air Brakes"
        JMRI line 986:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
        KAM line 1160:                <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  - Neutral Only
 JMRI line 709:      <ivariable label=" - Neutral Only" CVname="53.7.1" CV="53" PI="7" SI="1"
  KAM line 1167:            <NAME> - Neutral Only</NAME>

Variable named: Outout 13 - Forward/Reverse Only
 JMRI line 1017:      <ivariable label="Outout 13 - Forward/Reverse Only" CVname="53.13.0"
CV="53" PI="13" SI="0"
  KAM line 1210:            <NAME>Outout 13 - Forward/Reverse Only</NAME>
    selection "Dynamic Brakes"
        JMRI line 1020:         <ienumChoice choice="Dynamic Brakes" value="5"/>
        KAM line 1225:              <BitName>Dynamic Brakes</BitName>
    selection "Long Air Let-off"
        JMRI line 1021:         <ienumChoice choice="Long Air Let-off" value="9"/>
        KAM line 1226:              <BitName>Long Air Let-off</BitName>
    selection "Short Air Let-off"
        JMRI line 1022:         <ienumChoice choice="Short Air Let-off"/>
        KAM line 1227:              <BitName>Short Air Let-off</BitName>
    selection "Mute"
        JMRI line 1023:         <ienumChoice choice="Mute" value="64"/>
        KAM line 1228:              <BitName>Mute</BitName>
    selection "Doppler Shift"
        JMRI line 1024:         <ienumChoice choice="Doppler Shift"/>
        KAM line 1229:              <BitName>Doppler Shift</BitName>
    selection "Headlight"
```

```
     JMRI line 1025:          <ienumChoice choice="Headlight" value="98"/>
      KAM line 1230:              <BitName>Headlight</BitName>
   selection "Dim Headlight"
     JMRI line 1026:          <ienumChoice choice="Dim Headlight"/>
      KAM line 1231:              <BitName>Dim Headlight</BitName>
   selection "Reverse Light"
     JMRI line 1027:          <ienumChoice choice="Reverse Light"/>
      KAM line 1232:              <BitName>Reverse Light</BitName>
   selection "Automatic Cab Lights"
     JMRI line 1028:          <ienumChoice choice="Automatic Cab Lights"/>
      KAM line 1233:              <BitName>Automatic Cab Lights</BitName>
   selection "Directional Mars Light"
     JMRI line 1029:          <ienumChoice choice="Directional Mars Light"/>
      KAM line 1234:              <BitName>Directional Mars Light</BitName>
   selection "Mars Light"
     JMRI line 1029:          <ienumChoice choice="Directional Mars Light"/>
      KAM line 1235:              <BitName>Mars Light</BitName>
   selection "Strobe Mars Light"
     JMRI line 1031:          <ienumChoice choice="Strobe Mars Light"/>
      KAM line 1236:              <BitName>Strobe Mars Light</BitName>
   selection "Number Board Lights"
     JMRI line 1032:          <ienumChoice choice="Number Board Lights"/>
      KAM line 1237:              <BitName>Number Board Lights</BitName>
   selection "Directional Headlight + Directional Mars Light"
     JMRI line 1033:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
      KAM line 1238:              <BitName>Directional Headlight + Directional Mars
Light</BitName>
   selection "Directional Headlight + Directional Ditch Lights"
     JMRI line 1034:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
      KAM line 1239:              <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
   selection "Directional Ditch Lights"
     JMRI line 1034:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
      KAM line 1240:              <BitName>Directional Ditch Lights</BitName>
   selection "Ditch Lights"
     JMRI line 1034:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
      KAM line 1241:              <BitName>Ditch Lights</BitName>
   selection "Stobe Ditch Lights"
     JMRI line 1037:          <ienumChoice choice="Stobe Ditch Lights"/>
      KAM line 1242:              <BitName>Stobe Ditch Lights</BitName>
   selection "Cruise Control"
     JMRI line 1038:          <ienumChoice choice="Cruise Control" value="177"/>
      KAM line 1243:              <BitName>Cruise Control</BitName>
   selection "Scale mph Report and Status Report"
     JMRI line 1039:          <ienumChoice choice="Scale mph Report and Status Report"/>
      KAM line 1244:              <BitName>Scale mph Report and Status Report</BitName>
   selection "Coupler Effect"
     JMRI line 1040:          <ienumChoice choice="Coupler Effect" value="211"/>
      KAM line 1245:              <BitName>Coupler Effect</BitName>
   selection "Squealing Brakes"
     JMRI line 1041:          <ienumChoice choice="Squealing Brakes" value="215"/>
      KAM line 1246:              <BitName>Squealing Brakes</BitName>
   selection "Squealing Brakes + Air Brakes"
     JMRI line 1042:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
```

```
        KAM line 1247:              <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named: Outout 8 - Forward/Reverse Only
 JMRI line 737:      <ivariable label="Outout 8 - Forward/Reverse Only" CVname="53.8.0" CV="53"
PI="8" SI="0"
  KAM line 1254:              <NAME>Outout 8 - Forward/Reverse Only</NAME>
    selection "Dynamic Brakes"
      JMRI line 740:          <ienumChoice choice="Dynamic Brakes" value="5"/>
       KAM line 1269:              <BitName>Dynamic Brakes</BitName>
    selection "Long Air Let-off"
      JMRI line 741:          <ienumChoice choice="Long Air Let-off" value="9"/>
       KAM line 1270:              <BitName>Long Air Let-off</BitName>
    selection "Short Air Let-off"
      JMRI line 742:          <ienumChoice choice="Short Air Let-off"/>
       KAM line 1271:              <BitName>Short Air Let-off</BitName>
    selection "Mute"
      JMRI line 743:          <ienumChoice choice="Mute" value="64"/>
       KAM line 1272:              <BitName>Mute</BitName>
    selection "Doppler Shift"
      JMRI line 744:          <ienumChoice choice="Doppler Shift"/>
       KAM line 1273:              <BitName>Doppler Shift</BitName>
    selection "Headlight"
      JMRI line 745:          <ienumChoice choice="Headlight" value="98"/>
       KAM line 1274:              <BitName>Headlight</BitName>
    selection "Dim Headlight"
      JMRI line 746:          <ienumChoice choice="Dim Headlight"/>
       KAM line 1275:              <BitName>Dim Headlight</BitName>
    selection "Reverse Light"
      JMRI line 747:          <ienumChoice choice="Reverse Light"/>
       KAM line 1276:              <BitName>Reverse Light</BitName>
    selection "Automatic Cab Lights"
      JMRI line 748:          <ienumChoice choice="Automatic Cab Lights"/>
       KAM line 1277:              <BitName>Automatic Cab Lights</BitName>
    selection "Directional Mars Light"
      JMRI line 749:          <ienumChoice choice="Directional Mars Light"/>
       KAM line 1278:              <BitName>Directional Mars Light</BitName>
    selection "Mars Light"
      JMRI line 749:          <ienumChoice choice="Directional Mars Light"/>
       KAM line 1279:              <BitName>Mars Light</BitName>
    selection "Strobe Mars Light"
      JMRI line 751:          <ienumChoice choice="Strobe Mars Light"/>
       KAM line 1280:              <BitName>Strobe Mars Light</BitName>
    selection "Number Board Lights"
      JMRI line 752:          <ienumChoice choice="Number Board Lights"/>
       KAM line 1281:              <BitName>Number Board Lights</BitName>
    selection "Directional Headlight + Directional Mars Light"
      JMRI line 753:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
       KAM line 1282:              <BitName>Directional Headlight + Directional Mars
Light</BitName>
    selection "Directional Headlight + Directional Ditch Lights"
      JMRI line 754:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
       KAM line 1283:              <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
    selection "Directional Ditch Lights"
      JMRI line 754:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
```

```
     KAM line 1284:              <BitName>Directional Ditch Lights</BitName>
   selection "Ditch Lights"
     JMRI line 754:         <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
     KAM line 1285:              <BitName>Ditch Lights</BitName>
   selection "Stobe Ditch Lights"
     JMRI line 757:         <ienumChoice choice="Stobe Ditch Lights"/>
     KAM line 1286:              <BitName>Stobe Ditch Lights</BitName>
   selection "Cruise Control"
     JMRI line 758:         <ienumChoice choice="Cruise Control" value="177"/>
     KAM line 1287:              <BitName>Cruise Control</BitName>
   selection "Scale mph Report and Status Report"
     JMRI line 759:         <ienumChoice choice="Scale mph Report and Status Report"/>
     KAM line 1288:              <BitName>Scale mph Report and Status Report</BitName>
   selection "Coupler Effect"
     JMRI line 760:         <ienumChoice choice="Coupler Effect" value="211"/>
     KAM line 1289:              <BitName>Coupler Effect</BitName>
   selection "Squealing Brakes"
     JMRI line 761:         <ienumChoice choice="Squealing Brakes" value="215"/>
     KAM line 1290:              <BitName>Squealing Brakes</BitName>
   selection "Squealing Brakes + Air Brakes"
     JMRI line 762:         <ienumChoice choice="Squealing Brakes + Air Brakes"/>
     KAM line 1291:              <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  - Neutral Only
 JMRI line 765:      <ivariable label=" - Neutral Only" CVname="53.8.1" CV="53" PI="8" SI="1"
  KAM line 1298:              <NAME> - Neutral Only</NAME>

Variable named: Output 3 - Forward/Reverse Only
 JMRI line 542:      <ivariable label="Output 3 - Forward/Reverse Only" CVname="53.3.0" CV="53"
PI="3" SI="0"
  KAM line 1320:              <NAME>Output 3 - Forward/Reverse Only</NAME>
   selection "Bell"
     JMRI line 545:         <ienumChoice choice="Bell" value="3"/>
     KAM line 1335:              <BitName>Bell</BitName>

Variable named:  - Neutral Only
 JMRI line 821:      <ivariable label=" - Neutral Only" CVname="53.9.1" CV="53" PI="9" SI="1"
  KAM line 1342:              <NAME> - Neutral Only</NAME>

Variable named: Output 1 - Forward/Reverse Only
 JMRI line 516:      <ivariable label="Output 1 - Forward/Reverse Only" CVname="53.1.0" CV="53"
PI="1" SI="0"
  KAM line 1364:              <NAME>Output 1 - Forward/Reverse Only</NAME>
   selection "Directional Headlight"
     JMRI line 519:         <ienumChoice choice="Directional Headlight" value="96"/>
     KAM line 1379:              <BitName>Directional Headlight</BitName>

Variable named:  - Neutral Only
 JMRI line 877:      <ivariable label=" - Neutral Only" CVname="53.10.1" CV="53" PI="10" SI="1"
  KAM line 1386:              <NAME> - Neutral Only</NAME>

Variable named: Output 2 - Forward/Reverse Only
 JMRI line 529:      <ivariable label="Output 2 - Forward/Reverse Only" CVname="53.2.0" CV="53"
PI="2" SI="0"
  KAM line 1408:              <NAME>Output 2 - Forward/Reverse Only</NAME>
   selection "Directional Reverse Light"
     JMRI line 532:         <ienumChoice choice="Directional Reverse Light" value="97"/>
```

```
     KAM line 1423:                    <BitName>Directional Reverse Light</BitName>

Variable named:  - Neutral Only
 JMRI line 933:      <ivariable label=" - Neutral Only" CVname="53.11.1" CV="53" PI="11" SI="1"
  KAM line 1430:              <NAME> - Neutral Only</NAME>

Variable named:  - Neutral Only
 JMRI line 989:      <ivariable label=" - Neutral Only" CVname="53.12.1" CV="53" PI="12" SI="1"
  KAM line 1452:              <NAME> - Neutral Only</NAME>

Variable named: Outout 7 - Forward/Reverse Only
 JMRI line 681:      <ivariable label="Outout 7 - Forward/Reverse Only" CVname="53.7.0" CV="53"
PI="7" SI="0"
  KAM line 1495:              <NAME>Outout 7 - Forward/Reverse Only</NAME>
   selection "Dynamic Brakes"
      JMRI line 684:        <ienumChoice choice="Dynamic Brakes" value="5"/>
       KAM line 1510:          <BitName>Dynamic Brakes</BitName>
   selection "Long Air Let-off"
      JMRI line 685:        <ienumChoice choice="Long Air Let-off" value="9"/>
       KAM line 1511:          <BitName>Long Air Let-off</BitName>
   selection "Short Air Let-off"
      JMRI line 686:        <ienumChoice choice="Short Air Let-off"/>
       KAM line 1512:          <BitName>Short Air Let-off</BitName>
   selection "Mute"
      JMRI line 687:        <ienumChoice choice="Mute" value="64"/>
       KAM line 1513:          <BitName>Mute</BitName>
   selection "Doppler Shift"
      JMRI line 688:        <ienumChoice choice="Doppler Shift"/>
       KAM line 1514:          <BitName>Doppler Shift</BitName>
   selection "Headlight"
      JMRI line 689:        <ienumChoice choice="Headlight" value="98"/>
       KAM line 1515:          <BitName>Headlight</BitName>
   selection "Dim Headlight"
      JMRI line 690:        <ienumChoice choice="Dim Headlight"/>
       KAM line 1516:          <BitName>Dim Headlight</BitName>
   selection "Reverse Light"
      JMRI line 691:        <ienumChoice choice="Reverse Light"/>
       KAM line 1517:          <BitName>Reverse Light</BitName>
   selection "Automatic Cab Lights"
      JMRI line 692:        <ienumChoice choice="Automatic Cab Lights"/>
       KAM line 1518:          <BitName>Automatic Cab Lights</BitName>
   selection "Directional Mars Light"
      JMRI line 693:        <ienumChoice choice="Directional Mars Light"/>
       KAM line 1519:          <BitName>Directional Mars Light</BitName>
   selection "Mars Light"
      JMRI line 693:        <ienumChoice choice="Directional Mars Light"/>
       KAM line 1520:          <BitName>Mars Light</BitName>
   selection "Strobe Mars Light"
      JMRI line 695:        <ienumChoice choice="Strobe Mars Light"/>
       KAM line 1521:          <BitName>Strobe Mars Light</BitName>
   selection "Number Board Lights"
      JMRI line 696:        <ienumChoice choice="Number Board Lights"/>
       KAM line 1522:          <BitName>Number Board Lights</BitName>
   selection "Directional Headlight + Directional Mars Light"
      JMRI line 697:        <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
       KAM line 1523:          <BitName>Directional Headlight + Directional Mars
Light</BitName>
```

```
    selection "Directional Headlight + Directional Ditch Lights"
        JMRI line 698:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1524:              <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
    selection "Directional Ditch Lights"
        JMRI line 698:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1525:              <BitName>Directional Ditch Lights</BitName>
    selection "Ditch Lights"
        JMRI line 698:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1526:              <BitName>Ditch Lights</BitName>
    selection "Stobe Ditch Lights"
        JMRI line 701:          <ienumChoice choice="Stobe Ditch Lights"/>
        KAM line 1527:              <BitName>Stobe Ditch Lights</BitName>
    selection "Cruise Control"
        JMRI line 702:          <ienumChoice choice="Cruise Control" value="177"/>
        KAM line 1528:              <BitName>Cruise Control</BitName>
    selection "Scale mph Report and Status Report"
        JMRI line 703:          <ienumChoice choice="Scale mph Report and Status Report"/>
        KAM line 1529:              <BitName>Scale mph Report and Status Report</BitName>
    selection "Coupler Effect"
        JMRI line 704:          <ienumChoice choice="Coupler Effect" value="211"/>
        KAM line 1530:              <BitName>Coupler Effect</BitName>
    selection "Squealing Brakes"
        JMRI line 705:          <ienumChoice choice="Squealing Brakes" value="215"/>
        KAM line 1531:              <BitName>Squealing Brakes</BitName>
    selection "Squealing Brakes + Air Brakes"
        JMRI line 706:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
        KAM line 1532:              <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named:  – Neutral Only
 JMRI line 1045:       <ivariable label=" – Neutral Only" CVname="53.13.1" CV="53" PI="13" SI="1"
  KAM line 1539:           <NAME> – Neutral Only</NAME>

Variable named: Outout 5 – Forward/Reverse Only
 JMRI line 569:       <ivariable label="Outout 5 – Forward/Reverse Only" CVname="53.5.0" CV="53"
PI="5" SI="0"
  KAM line 1582:           <NAME>Outout 5 – Forward/Reverse Only</NAME>
    selection "Dynamic Brakes"
        JMRI line 572:          <ienumChoice choice="Dynamic Brakes" value="5"/>
        KAM line 1597:              <BitName>Dynamic Brakes</BitName>
    selection "Long Air Let-off"
        JMRI line 573:          <ienumChoice choice="Long Air Let-off" value="9"/>
        KAM line 1598:              <BitName>Long Air Let-off</BitName>
    selection "Short Air Let-off"
        JMRI line 574:          <ienumChoice choice="Short Air Let-off"/>
        KAM line 1599:              <BitName>Short Air Let-off</BitName>
    selection "Mute"
        JMRI line 575:          <ienumChoice choice="Mute" value="64"/>
        KAM line 1600:              <BitName>Mute</BitName>
    selection "Doppler Shift"
        JMRI line 576:          <ienumChoice choice="Doppler Shift"/>
        KAM line 1601:              <BitName>Doppler Shift</BitName>
    selection "Headlight"
        JMRI line 577:          <ienumChoice choice="Headlight" value="98"/>
        KAM line 1602:              <BitName>Headlight</BitName>
```

```
selection "Dim Headlight"
    JMRI line 578:          <ienumChoice choice="Dim Headlight"/>
     KAM line 1603:               <BitName>Dim Headlight</BitName>
  selection "Reverse Light"
    JMRI line 579:          <ienumChoice choice="Reverse Light"/>
     KAM line 1604:               <BitName>Reverse Light</BitName>
  selection "Automatic Cab Lights"
    JMRI line 580:          <ienumChoice choice="Automatic Cab Lights"/>
     KAM line 1605:               <BitName>Automatic Cab Lights</BitName>
  selection "Directional Mars Light"
    JMRI line 581:          <ienumChoice choice="Directional Mars Light"/>
     KAM line 1606:               <BitName>Directional Mars Light</BitName>
  selection "Mars Light"
    JMRI line 581:          <ienumChoice choice="Directional Mars Light"/>
     KAM line 1607:               <BitName>Mars Light</BitName>
  selection "Strobe Mars Light"
    JMRI line 583:          <ienumChoice choice="Strobe Mars Light"/>
     KAM line 1608:               <BitName>Strobe Mars Light</BitName>
  selection "Number Board Lights"
    JMRI line 584:          <ienumChoice choice="Number Board Lights"/>
     KAM line 1609:               <BitName>Number Board Lights</BitName>
  selection "Directional Headlight + Directional Mars Light"
    JMRI line 585:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
     KAM line 1610:               <BitName>Directional Headlight + Directional Mars
Light</BitName>
  selection "Directional Headlight + Directional Ditch Lights"
    JMRI line 586:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
     KAM line 1611:               <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
  selection "Directional Ditch Lights"
    JMRI line 586:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
     KAM line 1612:               <BitName>Directional Ditch Lights</BitName>
  selection "Ditch Lights"
    JMRI line 586:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
     KAM line 1613:               <BitName>Ditch Lights</BitName>
  selection "Stobe Ditch Lights"
    JMRI line 589:          <ienumChoice choice="Stobe Ditch Lights"/>
     KAM line 1614:               <BitName>Stobe Ditch Lights</BitName>
  selection "Cruise Control"
    JMRI line 590:          <ienumChoice choice="Cruise Control" value="177"/>
     KAM line 1615:               <BitName>Cruise Control</BitName>
  selection "Scale mph Report and Status Report"
    JMRI line 591:          <ienumChoice choice="Scale mph Report and Status Report"/>
     KAM line 1616:               <BitName>Scale mph Report and Status Report</BitName>
  selection "Coupler Effect"
    JMRI line 592:          <ienumChoice choice="Coupler Effect" value="211"/>
     KAM line 1617:               <BitName>Coupler Effect</BitName>
  selection "Squealing Brakes"
    JMRI line 593:          <ienumChoice choice="Squealing Brakes" value="215"/>
     KAM line 1618:               <BitName>Squealing Brakes</BitName>
  selection "Squealing Brakes + Air Brakes"
    JMRI line 594:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
     KAM line 1619:               <BitName>Squealing Brakes + Air Brakes</BitName>
```

```
Variable named:  - Neutral Only
 JMRI line 1101:      <ivariable label=" - Neutral Only" CVname="53.14.1" CV="53" PI="14" SI="1"
  KAM line 1626:             <NAME> - Neutral Only</NAME>


Variable named: Outout 6 - Forward/Reverse Only
 JMRI line 625:      <ivariable label="Outout 6 - Forward/Reverse Only" CVname="53.6.0" CV="53"
PI="6" SI="0"
  KAM line 1669:             <NAME>Outout 6 - Forward/Reverse Only</NAME>
    selection "Dynamic Brakes"
       JMRI line 628:          <ienumChoice choice="Dynamic Brakes" value="5"/>
        KAM line 1684:             <BitName>Dynamic Brakes</BitName>
    selection "Long Air Let-off"
       JMRI line 629:          <ienumChoice choice="Long Air Let-off" value="9"/>
        KAM line 1685:             <BitName>Long Air Let-off</BitName>
    selection "Short Air Let-off"
       JMRI line 630:          <ienumChoice choice="Short Air Let-off"/>
        KAM line 1686:             <BitName>Short Air Let-off</BitName>
    selection "Mute"
       JMRI line 631:          <ienumChoice choice="Mute" value="64"/>
        KAM line 1687:             <BitName>Mute</BitName>
    selection "Doppler Shift"
       JMRI line 632:          <ienumChoice choice="Doppler Shift"/>
        KAM line 1688:             <BitName>Doppler Shift</BitName>
    selection "Headlight"
       JMRI line 633:          <ienumChoice choice="Headlight" value="98"/>
        KAM line 1689:             <BitName>Headlight</BitName>
    selection "Dim Headlight"
       JMRI line 634:          <ienumChoice choice="Dim Headlight"/>
        KAM line 1690:             <BitName>Dim Headlight</BitName>
    selection "Reverse Light"
       JMRI line 635:          <ienumChoice choice="Reverse Light"/>
        KAM line 1691:             <BitName>Reverse Light</BitName>
    selection "Automatic Cab Lights"
       JMRI line 636:          <ienumChoice choice="Automatic Cab Lights"/>
        KAM line 1692:             <BitName>Automatic Cab Lights</BitName>
    selection "Directional Mars Light"
       JMRI line 637:          <ienumChoice choice="Directional Mars Light"/>
        KAM line 1693:             <BitName>Directional Mars Light</BitName>
    selection "Mars Light"
       JMRI line 637:          <ienumChoice choice="Directional Mars Light"/>
        KAM line 1694:             <BitName>Mars Light</BitName>
    selection "Strobe Mars Light"
       JMRI line 639:          <ienumChoice choice="Strobe Mars Light"/>
        KAM line 1695:             <BitName>Strobe Mars Light</BitName>
    selection "Number Board Lights"
       JMRI line 640:          <ienumChoice choice="Number Board Lights"/>
        KAM line 1696:             <BitName>Number Board Lights</BitName>
    selection "Directional Headlight + Directional Mars Light"
       JMRI line 641:          <ienumChoice choice="Directional Headlight + Directional Mars
Light" value="107"/>
        KAM line 1697:             <BitName>Directional Headlight + Directional Mars
Light</BitName>
    selection "Directional Headlight + Directional Ditch Lights"
       JMRI line 642:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1698:             <BitName>Directional Headlight + Directional Ditch
Lights</BitName>
    selection "Directional Ditch Lights"
```

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     JMRI line 642:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1699:          <BitName>Directional Ditch Lights</BitName>
     selection "Ditch Lights"
     JMRI line 642:          <ienumChoice choice="Directional Headlight + Directional Ditch
Lights"/>
        KAM line 1700:          <BitName>Ditch Lights</BitName>
     selection "Stobe Ditch Lights"
     JMRI line 645:          <ienumChoice choice="Stobe Ditch Lights"/>
        KAM line 1701:          <BitName>Stobe Ditch Lights</BitName>
     selection "Cruise Control"
     JMRI line 646:          <ienumChoice choice="Cruise Control" value="177"/>
        KAM line 1702:          <BitName>Cruise Control</BitName>
     selection "Scale mph Report and Status Report"
     JMRI line 647:          <ienumChoice choice="Scale mph Report and Status Report"/>
        KAM line 1703:          <BitName>Scale mph Report and Status Report</BitName>
     selection "Coupler Effect"
     JMRI line 648:          <ienumChoice choice="Coupler Effect" value="211"/>
        KAM line 1704:          <BitName>Coupler Effect</BitName>
     selection "Squealing Brakes"
     JMRI line 649:          <ienumChoice choice="Squealing Brakes" value="215"/>
        KAM line 1705:          <BitName>Squealing Brakes</BitName>
     selection "Squealing Brakes + Air Brakes"
     JMRI line 650:          <ienumChoice choice="Squealing Brakes + Air Brakes"/>
        KAM line 1706:          <BitName>Squealing Brakes + Air Brakes</BitName>

Variable named: Ditch Light Hold Time (seconds)
 JMRI line 1129:     <ivariable label="Ditch Light Hold Time (seconds)" CVname="55.110.5"
CV="55" PI="110" SI="5" default="5"
  KAM line 1713:          <NAME>Ditch Light Hold Time (seconds)</NAME>

Variable named: Throttle Mode
 JMRI line 1133:     <ivariable label="Throttle Mode" CVname="56.4" CV="56" PI="4" default="1"
  KAM line 1733:          <NAME>Throttle Mode</NAME>
    selection "Standard Throttle Control"
     JMRI line 1136:          <ienumChoice choice="Standard Throttle Control"/>
        KAM line 1748:          <BitName>Standard Throttle Control</BitName>
    selection "Speed Control"
     JMRI line 1137:          <ienumChoice choice="Speed Control"/>
        KAM line 1749:          <BitName>Speed Control</BitName>
    selection "Regulated Throttle Control"
     JMRI line 1138:          <ienumChoice choice="Regulated Throttle Control"/>
        KAM line 1750:          <BitName>Regulated Throttle Control</BitName>

Variable named: Programming Verbal Acknowledgement
 JMRI line 450:     <variable label="Programming Verbal Acknowledgement" CV="62"
  KAM line 1757:          <NAME>Programming Verbal Acknowledgement</NAME>

Variable named: Verbal CV Inquiry
 JMRI line 459:     <variable label="Verbal CV Inquiry" CV="64" opsOnly="yes" writeOnly="yes"
  KAM line 1777:          <NAME>Verbal CV Inquiry</NAME>

Variable named: Forward Trim
 JMRI line 464:     <variable label="Forward Trim" CV="66" default="128">
  KAM line 1797:          <NAME>Forward Trim</NAME>

Variable named: Speed Table
 JMRI line 468:     <variable label="Speed Table" CV="67">
```

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  KAM line 1817:                 <NAME>Speed Table</NAME>


Variable named: Reverse Trim
 JMRI line 472:       <variable label="Reverse Trim" CV="95" default="128">
  KAM line 1837:                 <NAME>Reverse Trim</NAME>
```