May 17, 2000

MEMORANDUM

TO: Steve West, Administrator
    Boise Regional Office

FROM: Eric Antrim, Engineer-In-Training
      Technical Services Office

SUBJECT: PERMIT TO CONSTRUCT TECHNICAL ANALYSIS
P-000008, Western Construction, Inc., Boise
(Draft permit amendments to incorporate provisions for fugitive dust control and collocation)

PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 16.01.01.200 (Rules for the Control of Air Pollution in Idaho) for issuing Permits to Construct (PTC).

PROJECT DESCRIPTION

Western Construction, Inc., has requested amendments and modifications to five of their PTCs. First, they have requested the inclusion of a fugitive dust control plan and collocation terminology in two of them. Second, they have requested the inclusion of just the fugitive dust control plan in two more. Finally, they have asked that one of them be revoked. These requests have been satisfied. These permits will supersede previously issued permits of the same permit number, except in the case of the permit which was revoked.

It was noticed that PTC 777-00212 was missing annual NOx numbers for non-attainment areas. These numbers were provided by a previous analysis and have been included in the table on page 10 of PTC 777-00212.

SUMMARY OF EVENTS

On January 31, 2000, DEQ's Boise Regional Office received a request from Western Construction to amend/modify PTCs numbered 777-00231, 777-00042, 777-00098, 777-00212, & 777-00035. Application materials were assigned to DEQ staff, Technical Services Office, on February 10, 2000. On March 14, 2000, it was noticed that PTC 777-00212 was missing annual NOx numbers for non-attainment areas. These numbers were provided by a previous analysis and have been included in the table on page 10 of PTC 777-00212. This analysis is included with this memorandum.

DISCUSSION

1. Area Classification

   These are portable sources. The intent of these permits is to allow the facilities to be located anywhere in the State of Idaho, provided they follow the conditions of the applicable permit. They may be located or collocated in attainment areas. Also, they may be located in nonattainment areas. Collocation in nonattainment areas is not allowed.

2. Facility Classification

   Because of the imposition of federally enforceable limits, these facilities are not major facilities in accordance with IDAPA 16.01.01.006.55, nor are they designated facilities in accordance with IDAPA 16.01.01.006.27. None of these facilities are subject to any National Emission Standards for Hazardous Air Pollutants (NESHAP) in accordance with 40 CFR 61, or Maximum Achievable Control Technology (MACT) standards in accordance with 40 CFR 63. All facilities subject to this permitting action are classified A2. New Source Performance Standards in accordance with 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) and Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) apply. Only two of these will require a new performance test due to an increased potential to emit (PTE) with their new PTCs, because one was revoked and the other two have already completed performance tests.
2.1 **PTC # 777-00231**

This PTC is an amendment. This facility is a crusher for which the Standard Industrial Classification (SIC) code is 1442 (Construction Sand and Gravel). Because the new permit does not allow for an increase in emissions, it is not necessary for the source to be performance tested again. The previous performance test was completed September 14 and 15, 1999.

2.2 **PTC # 777-00212**

This PTC is an amendment. This facility is a hot-mix asphalt plant for which the Standard Industrial Classification (SIC) code is 2951. Because the new permit does not allow for an increase in emissions, it is not necessary for the source to be performance tested again. The previous performance test was completed July 26, 1999.

2.3 **PTC # 777-00035**

This crusher is no longer in use. This PTC is being revoked as part of this permitting action.

2.4 **PTC # 777-00098**

This PTC is a modification due to an increase in its PTE. This facility is a crusher for which the Standard Industrial Classification (SIC) code is 1442 (Construction Sand and Gravel). Because the new permit does allow for an increase in emissions, it is necessary for the source to be performance tested again.

2.5 **PTC # 777-00042**

This PTC is a modification due to an increase in its PTE. This facility is a crusher for which the Standard Industrial Classification (SIC) code is 1442 (Construction Sand and Gravel). Because the new permit does allow for an increase in emissions, it is necessary for the source to be performance tested again.

3. **PTC Amendments**

3.1 **PTC # 777-00231**

Amended to include a Fugitive Dust Control Plan to ensure compliance with National Ambient Air Quality Standards (NAAQS) beyond the facility's boundaries. All other requirements of this permit remain unchanged. This permit is for a crusher.

3.2 **PTC # 777-00212**

Amended to include a Fugitive Dust Control Plan to ensure compliance with National Ambient Air Quality Standards (NAAQS) beyond the facility’s boundaries. All other requirements of this permit remain unchanged. This permit is for a hot-mix asphalt plant.

3.3 **PTC # 777-00035**

PTC # 777-00035 is hereby revoked. The applicant has indicated PTC # 777-00035 is no longer in use and should be removed. This permit was for a crusher.

4. **PTC Modifications**

4.1 **PTC # 777-00098**

This modification resulted from updating an older format. Western Construction essentially reapplied for this permit making changes to their original permit application. They wanted the Fugitive Dust Control Plan to be included. Previously, this provision was not included in this permit. After the completion of the attached spreadsheet, the prepared permit incorporated the changes requested by Western
Construction. Permit 777-00098 was last updated on December 6, 1999. The generator size has increased from 750 kW to 1,220 kW, and the number of crushers allowed has increased from 3 to 4. When not collocated in an attainment or unclassifiable area, the permitted throughput decreased from 2,080,269 tons per year to 1,340,868 tons per year, and the permitted hours of generator operation decreased from 7,824 hours per year to 6,706 hours per year. When collocated, the permitted throughput decreased from 1,040,544 tons per year to 670,434 tons per year, and the permitted hours of generator operation decreased from 3,912 hours per year to 3,533 hours per year. The previous edition of this permit did not allow operation in a nonattainment area, even when not collocated; the current one allows 1,340,868 tons of throughput per year and 6,706 hours of generator operation per year when not collocated. Because the previously permitted emissions in a nonattainment area were zero, and they are now nonzero, the changes to this PTC constitute a modification of the previous permit.

Table 1. PTC # 777-00098 Modification Summary

<table>
<thead>
<tr>
<th></th>
<th>Attainment Area</th>
<th>Colocation (Attainment Area)</th>
<th>Nonattainment Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>throughput</td>
<td>generator</td>
<td>throughput</td>
</tr>
<tr>
<td></td>
<td>tons per yr</td>
<td>hours per yr</td>
<td>generator</td>
</tr>
<tr>
<td>Pre-Modification</td>
<td>2,080,269</td>
<td>7,824</td>
<td>1,040,544</td>
</tr>
<tr>
<td>Post-Modification</td>
<td>1,340,868</td>
<td>6,706</td>
<td>670,434</td>
</tr>
</tbody>
</table>

PTC # 777-00042

This modification resulted from updating an older format. Western Construction essentially reapplied for this permit making changes to their original permit application. They wanted the Fugitive Dust Control Plan to be included. Previously, this provision was not included in this permit. After the completion of the attached spreadsheet, the prepared permit incorporated the changes requested by Western Construction.

Permit 777-00042 was last updated on November 24, 1995. The generator size and number of crushers were not previously specified, now they are 1,220 kW and 4 respectively. The previous permit specifies 800,000 tons of throughput per year and 2,000 hours of “crusher” operation per year. The previous permit does not discuss colocation. The current permit specifies throughput rates and hours of "generator" operation based on attainment/nonattainment and colocation status.

When not collocated and operating in an attainment or unclassifiable area, the permitted throughput is 1,340,868 tons per year; and the permitted hours of generator operation are 6,706 hours per year. When collocated, the permitted throughput is 670,434 tons per year; and the permitted hours of generator operation are 3,533 hours per year. The current permit allows 1,340,868 tons of throughput per year and 6,706 hours of generator operation per year in a nonattainment area. The permitted throughput under the previous permit is 129,566 tons per year greater than the most restrictive requirement of the new permit and 540,868 tons per year less than the least restrictive one. The permitted hours of "crusher" operation are 1,353 hours per year less than the most restrictive currently permitted hours of "generator" operation.

The limits on this crusher are identical to those in PTC # 777-00098 and are shown in Table 1.

5. Modeling

The EPA approved SCREEN3 model was used to predict the concentration of pollutants in the exhaust gas stream from both crusher generators where the changes made were classified as modifications. These were PTC # 777-00098 and PTC # 777-00042. Since these generators are identical, the model was only run one time for both cases. The results are attached and summarized in the “post-modification” row of Table 1.
6. Regulatory Review

IDAPA 16.01.01.201 Permit to Construct Required

Two of these facilities (PTC # 777-00098 & PTC # 777-00042) are allowed increased emissions in non-attainment areas and are, therefore, classified as modifications. This triggers permit to construct requirements. The remaining facilities are not increasing emissions. The changes to these remaining facilities are classified as amendments.

IDAPA 16.01.01.210 Demonstration of Preconstruction Compliance with Toxic Standards

This regulation does not apply.

IDAPA 16.01.01.677 Ambient Air Quality Standards for Specific Air Pollutants

Crusher throughput and generator hours of operation were limited to prevent the exceeding of ambient standards. The ambient air quality beyond the facilities' boundaries are further protected by requiring the reasonable control of fugitive dust emissions so that no visible emissions be seen crossing the facilities' boundaries. The facility must also develop a Fugitive Dust Control Plan.

40 CFR 52 Prevention of Significant Deterioration

Because of federally enforceable limits on throughput and hours of generator operation, this facility is not a PSD major facility.

40 CFR 60 New Source Performance Standards

New Source Performance Standards in accordance with 40 CFR 60, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) and Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) apply. Only the emission units regulated by PTCs # 777-00098 and # 777-00042 will require performance testing with their new permits due to an increase in allowable emissions under the new permits.

40 CFR 61 & 63 National Emission Standards for Hazardous Air Pollutants & MACT

NESHAP and MACT requirements do not apply to this facility.

7. Permit Requirements

7.1 PTC # 777-00231

Included Federal Dust Control Plan to insure compliance with NAAQS beyond facility boundaries.

7.2 PTC # 777-00212

Included Federal Dust Control Plan to insure compliance with NAAQS beyond facility boundaries.

7.3 PTC # 777-00035

This permit was revoked. The applicant indicated that the crusher was no longer in use and that the permit should be removed.

7.4 PTC # 777-00098

This is essentially a new permit using an old PTC number.
7.4.1 **Statewide Requirements**

These requirements are independent of attainment/nonattainment or unclassifiable area status.

7.4.1.1 **Emission Limits**

This requirement is to assure that the Permittee inspects all potential sources to ensure compliance with IDAPA 16.01.01.625. The permittee is required to maintain a log of each inspection and include in the log the assessment of the conditions existing at the time visible emissions are observed and any correction taken in response to the visible emissions.

7.4.1.2 **Operating Requirements**

The facility is limited to four crushers and a 1,220 kW generator. The facility is required to take reasonable precautions to prevent particulate matter from becoming airborne and thereby ensure compliance with IDAPA 16.01.01.651. The permittee is required to develop a written plan detailing the methods and procedures that will be used to control fugitive dust emissions.

7.4.1.3 **Monitoring and Recordkeeping Requirements**

The facility is required to record location (nonattainment, attainment, or unclassifiable), throughput, and hours of generator operation on a daily basis and maintain these records on site, in a log, and make them available to DEQ representatives upon request. A performance test is required according to 40 CFR 60.675 and IDAPA 16.01.01.157 on all equipment affected by 40 CFR 60.670.

7.4.1.4 **Reporting Requirements**

The Permittee is encouraged to submit a written performance test protocol to DEQ thirty days in advance of the performance test in accordance with IDAPA 16.01.01.157.07.a. The Permittee is required to submit a written report of the performance test to DEQ within thirty days of the test in accordance with IDAPA 16.01.01.157.04. The Permittee is required to submit registration/relocation forms supplied by DEQ in accordance with IDAPA 16.01.01.500.

7.4.2 **Attainment or Unclassifiable Area Requirements when Not Collocated**

Throughput is limited to 1,340,268 tons per year and the hours of generator operation are limited to 6,706 hours per year. These limits are required to limit the facility's Potential To Emit (PTE) to retain its minor source status.

7.4.3 **Attainment or Unclassifiable Area Requirements when Collocated**

The Permittee shall not collocate without obtaining a permit which specifically allows for collocation. The facility may only collocate with one other source which has been permitted to specifically allow for collocation. Throughput is limited to 670,434 tons per year and the hours of generator operation are limited to 3,353 hours per year. These limits are required to limit the facility’s Potential To Emit (PTE) to retain its minor source status.

7.4.4 **Nonattainment Area Requirements**

The facility shall not be collocated in a nonattainment or proposed nonattainment area. Throughput is limited to 1,340,358 tons per year and the hours of generator operation are limited to 6,706 hours per year. These limits are required to limit the facility’s Potential To Emit
(PTE) to retain its minor source status.

7.5 **PTC # 777-00042**

The requirements for this permit are identical to those listed immediately above for # 777-00098.

**FEES**

Registration fees do not apply to this facility in accordance with IDAPA 16.01.01.527. This is not a major facility as defined in IDAPA 16.01.01.008.10.

**RECOMMENDATION**

Based on review of application materials and all applicable state and federal rules and regulations, staff recommend that Western Construction be issued draft amended PTCs for their portable rock crushing and hot-mix asphalt equipment. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

**cc:** DEQ State Office  
Boise Regional Office