OPERATING PERMIT - TECHNICAL SUMMARY
SITE OPERATING PERMIT - SOP
RENEWAL

Permit #:	**O-01824**	Company:	**Royal Baths Manufacturing Company Ltd**
Project #:	**7611**	Site:	**Royal Baths Chrisman Road Facility**
Account #:	**HG-5032-O**	Application Area:	**Royal Baths Chrisman Road Facility**
Regulated Entity #:	**RN100214485**	Customer #:	**CN601573207**
Region:	**12**	County:	**Harris**
SIC Code:	**3088**	SIC Name:	**Plastics, Plumbing Fixtures**

Permit Reviewer: **Kim D. Strong, P.E.**

PERMIT INFORMATION

Was confidential information submitted?	**No**
Are any permits being reviewed for New Source Review action?	**Yes**
Are any units not in compliance?	**No**
Is a Compliance Plan required?	**No**
Was the Application Shield removed?	**No**
Are there rule interpretation issues?	**No**
Is there a stringency determination?	**No**
Is a Permit Shield requested?	**Yes**
Is the application subject to acid rain permitting?	**No**
Are there any affected states?	**No**

SITE INFORMATION

Physical Location: 14635 Chrisman Road
Nearest City: Houston
Major Pollutants: HAPS
Additional FOPs: None

PROJECT SUMMARY

Royal Baths Chrisman Road Facility is a plastics, plumbing fixtures facility subject to 30 TAC Chapter 122. The initial permit was issued February 6, 2001. Significant emission sources at the site include a tanks and vents, which are subject to State and/or Federal Regulations. The permit includes Site-wide Terms and Conditions which were identified using information provided by the applicant in Form OP-REQ1, and Unit Specific applicable requirements which were identified using information provided by the applicant in various forms (Forms OP-SUM, OP-REQ2, OP-REQ3, and various Unit Attribute tables).

PROCESS DESCRIPTION

a. Fiberglass Resin Fabrication

Royal Baths Manufacturing Company manufactures bathtubs, vanity tops, bathroom sinks, and accessories. The first step involves fiberglass resin fabrication. Liquid resin is purchased and stored in a 5,900 gallon tank (TNK-1) and a 4,000 gallon tank (TNK-2). The liquid resin is mixed with a catalyst to initiate polymerization into a solid thermoset. Resins are mixed with fillers and extenders in drums. Catalyst concentrations make up about two percent of the original weight of the resin. Fiberglass whirlpool tub fabrication is done by spray lay up, or "spray up", and is an open mold process. Mechanical spraying and chopping equipment is used for depositing the resin and glass reinforcement. Instead of using a gel coat in this process, molds are made in a vacuum forming process from acrylic sheets.

For reinforced layers, a device is attached to the sprayer system to chop glass fiber "roving" (uncut fiber) into predetermined lengths and project it to merge with the resin mix stream. The stream precoats the chop, and both are deposited simultaneously to the desired layer thickness on the mold surface. Layers are built up and rolled out on the mold as necessary to form the part. The sprayup is vented through a 24 foot wide by 7.2 foot high dry filter media booth with two 24,000 acfm fans. (FRF-1 and FRF-2)

b. Marble Fabrication

The marble fabrication booth (MRF-1) is located in building number 2. Bathroom sinks, vanity tops, bathtubs and are produced in a synthetic marble casting process using filled resins. No reinforcing fibers are used in these products. This process is seldom used, however the source wishes to maintain the flexibility to utilize this process, if needed.

1. Tables are periodically cleaned with styrene to remove any build up that may occur during the process.
2. A mold release is applied to the table.
3. The table is painted by hand with a clear gelcoat and allowed to cure.
4. Liquid resin is purchased and stored in 55 gallon drums. The liquid resin is mixed with a catalyst to initiate Polymerization into a solid thermoset. Resins are mixed with fillers, and extenders in drums near the spray Up area.
5. The marble/resin mix is applied using the hand lay-up process and allowed to cure.
6. The table is demolded.
7. The part is taken to the finishing area. It is cleaned, taped, and transported to the shipping area.

Potential usages are: gelcoat- 25 pounds per day
Styrene- 1.1 pounds per day

Most of the marble products go back to the fiberglass resin fabrication department so that a thin coating of fiberglass resin can be applied to the surface. A small number (about 1%) of the marble products do not go through this process, but instead go directly to the trimming and finishing departments for completion. The marble casting is vented through a nine foot wide by seven foot high dry filter media booth with one 24,000 acfm fan. (MRF-1)

c. Trimming, Finishing, and Quality Control

The bathtubs and vanity tops are sent for trimming and polishing. The trimming is vented through a 4-10 foot wide by 7.2 foot high dry filter media booth with four 24,000 acfm fans. (T-1, T-2, T-3, T-4) Then the products go to the finishing department for installation of the piping, pumps, ad accessories. The finishing is vented through a twelve foot wide by six foot high dry filter media booth with a 12,000 acfm fan. (F-1)

TECHNICAL REVIEW

The initial permit was issued on February 6, 2001 The renewal application was received on August 2, 2005.

The application was reviewed and Jack Benton was sent an e-mail of deficiencies. The following deficiencies were found during review. Additional information was needed on the latest version of OP-UA15 for 30 TAC Chapter 115 and OP-REQ1 in order to determine all applicable requirements. In addition, the applicability of the tanks to 30 TAC Chapter 115 needed to verified. Updates were received on August 25, 2005. However, not all deficiencies were addressed. Additional information was needed on OP-UA3, OP-UA15, & OP-REQ1 which was not provided with the last updates. Also, there were several deficiencies with the negative determinations on OP-REQ2. Updated information was received on September 6, 2005 which resolved all deficiencies.

The draft permit was submitted to the applicant on: September 6, 2005
Did the applicant comment on the draft permit? Jack Benton replied on September 27, 2005 with a corrected process description and no other changes.

MANUAL CHANGES TO PERMIT
*Added a term & condition for MACT WWWW with a future compliance date.

EMISSIONS BANKING AND TRADING PROVISIONS (Pursuant to 30 TAC Chapter 101, Subchapter H)
Is the site/permit area located in the Houston/Galveston ozone non-attainment area (as defined in 30 TAC Chapter 101, §101.1): Yes
Does the site collectively have an uncontrolled design capacity to emit ten tons or more per year of NOx.: No

COMPLIANCE ASSURANCE MONITORING (CAM)/ PERIODIC MONITORING (PM)
No additional monitoring was required.

COMPLIANCE REVIEW

Compliance History

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on: Sept. 6, 2005

The compliance history review evaluated the period from August 2, 2005 To Sept 6, 2005.
An evaluation for Federal Orders was conducted on: September 6, 2005
Was the application received after September 1, 2002? Yes
What was the site rating? 2.28 Company rating? 0.57
Is the SOP recommended to be denied on the basis of the compliance history or rating? No
Has the permit changed on the basis of the compliance history or rating? No

Enforcement Database Search

The enforcement database was reviewed on September 6, 2005. There were no active enforcement cases listed.

Compliance Status Summary

A review of the available information indicates that the applicant is in compliance with all applicable requirements for the site.

STATEMENT OF BASIS

A Statement of Basis sets forth the legal and factual basis for the permit conditions.
The Statement of Basis was prepared on: September 6, 2005
The Statement of Basis GroupWise Document #(OPDP Database): 39887

PUBLIC NOTICE INFORMATION

Date Public Notice Authorization Package/Legislators letters mailed: October 6, 2005
Publication Date: October 27, 2005 in Houston Press
Date faxed copies of notice received: October 31, 2005
Date Affidavit received: October 31, 2005

Alternate/Bilingual Language Notice published? Yes
Language: Spanish
Publication Date: October 31, 2005 In El Dia
Date faxed copies of notice received: October 31, 2005
Date Affidavit received: October 31, 2005

Date APD-PN2 (Air Permits Public Notice Verification) Received: December 12, 2005
Were Public Comments received? No

EPA REVIEW

Beginning of EPA Review Period: November 1, 2005
Did the EPA comment on the proposed permit? No

EPA review ended on December 16, 2005. Public petition began on December 17 and extended for sixty days.

PUBLIC PETITION PERIOD/FINAL STATE ACTION

Effective permit issuance date: January 3, 2006

Public petition ended on February 14, 2006.

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Kim D. Strong, P.E.
Permit Reviewer
Operating Permits Section
Air Permits Division

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Tanveer Anjum
Team Leader
Operating Permits Section
Air Permits Division

ATTACHMENTS

IMS Tracking Elements
Communication Log
Administrative Data

IMS TRACKING ELEMENTS

Stage	Start Date	Complete Date	Tracking Element	Type
IS	08/02/2005		DATE INITIAL INFO/APPL/REQUEST RECEIVED BY TCEQ	STANDARD EVENT
IS	08/04/2005		DATE PAR RECEIVED PROJECT	STANDARD EVENT
IS	08/08/2005		DATE PAR TRANSFERRED PROJECT TO APD	STANDARD EVENT
TR	08/11/2005		DATE PROJECT RECEIVED BY ENGINEER	STANDARD EVENT
TR	08/11/2005	08/25/2005	INFORMAL REQUEST FOR INFORMATION	OPTIONAL ACTIVITY
TR	08/11/2005	09/28/2005	TECHNICAL REVIEW PERIOD	STANDARD ACTIVITY
TR	08/25/2005	09/06/2005	INFORMAL REQUEST FOR INFORMATION	OPTIONAL ACTIVITY
TR	09/06/2005		DATE COMPLIANCE HISTORY REVIEW COMPLETED	STANDARD EVENT
TR	09/06/2005	09/27/2005	WORKING DRAFT PERMIT REVIEW BY APPLICANT	STANDARD ACTIVITY
PN	10/04/2005	10/05/2005	TEAM LEADER REVIEW OF PN AUTH PACKAGE	STANDARD ACTIVITY
PN	10/05/2005	10/05/2005	SECTION MANAGER REVIEW OF PN AUTH PACKAGE	STANDARD ACTIVITY
WPO	10/06/2005		WPO - DATE PNAP/DRAFT PERMIT MAILED	STANDARD EVENT
PN	10/27/2005	11/30/2005	PUBLIC NOTICE COMMENT PERIOD	STANDARD ACTIVITY
PN	10/31/2005		DATE PNAP DUE TO TEAM LEADER	STANDARD EVENT
EPA	11/01/2005	12/16/2005	EPA REVIEW PERIOD	STANDARD ACTIVITY
PN	12/12/2005		DATE SIGN POSTING CERTIFICATION RECEIVED	STANDARD EVENT
FSA	12/13/2005	12/19/2005	TEAM LEADER REVIEW OF FINAL ACTION	STANDARD ACTIVITY
FSA	12/19/2005	12/27/2005	SECTION MANAGER REVIEW OF FINAL ACTION	STANDARD ACTIVITY
FSA	01/03/2006		DATE OF EFFECTIVE/ISSUED PERMIT/AUTHORIZATION	STANDARD EVENT
PPP	01/03/2006		DATE PROJECT COMPLETED	STANDARD EVENT

COMMUNICATION LOG

Company Name	Application Area	Air Account Number	Regulated Entity Number	IMS Project Number
Royal Baths Manufacturing Company Ltd	Royal Baths Chrisman Road Facility	HG-5032-O	RN100214485	7611

Contact	Title	Phone or E-Mail	Date	Notes
Jack Benton	Technical Contact	jack@bentonconsultants.com	8/11/05	E-mailed Jack to request additional information needed to generate a draft permit. Requested updates by August 25, 2005.
Jack Benton	Technical Contact	jack@bentonconsultants.com	8/25/05	E-mailed Jack remaining deficiencies. Requested updates by August 31, 2005.
Jack Benton	Technical Contact	jack@bentonconsultants.com	8/29/05	Jack requested additional time to complete the updates because he was going to be out of town. Granted extension until September 7, 2005.
Jack Benton	Technical Contact	jack@bentonconsultants.com	9/6/05	E-mailed Jack the WDP for review. Requested comments by September 30, 2005.

ADMINISTRATIVE DATA

Responsible Official: Rodney Vickers
President
Royal Baths Manufacturing Company Ltd
14635 Chrisman Road
Houston, Tx 77039

Duly Authorized Rep: There is no Duly Authorized Representative

Technical Contact: Jack Benton
Consultant
Benton & Associates
5717 66th St Ste 124
Lubbock, Tx 79424
phone: (806) 783-9944
fax: (806) 783-9966
email: Jack@bentonconsultants.com