



# PROPOSAL

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API RBI V7.0 CONSEQUENCE MODELER CHEMICAL ADDITIONS  
API RBI PROPOSAL

*For*

AMERICAN PETROLEUM INSTITUTE

SEPTEMBER 1, 2005

THE EQUITY ENGINEERING GROUP, INC.

## SUMMARY OF PROPOSED WORK

• E <sup>2</sup> G Proposal No.	APIRBI006-0-05
• Proposal Title	API RBI V7.0 Consequence Modeler Chemical Additions
• Client Contact	Roland Goodman
• Company	American Petroleum Institute
• Physical Address	1220 L Street, Northwest Washington, DC 20005-4070
• Phone No.	202-682-8571
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• Author of Proposal	Lynne Kaley
• Objective	Add up to 100 chemicals to the fluid designer for the consequence modeler.
• Time Schedule	September 1, 2005 through May 1, 2005
• Resources	Project Manager – Lynne Kaley
• Deliverables	See descriptions below.
<b>Cost</b>	<b>Total: \$20,000</b>

## CHEMICAL ADDITIONS TO V7.0 CONSEQUENCE MODELER

Up to 100 chemicals (list of suggestions below) will be added to the consequence modeler choice list.

- Chemical properties will be provided by User Group companies
- A form with required physical properties will be provided.
- Proposed Start Date: September 1, 2005
- Completion Date – April 28,2006
- Cost: \$20,000

### Additional Chemicals for Addition to V7.0 Consequence Modeler

<b>Chemical Name</b>	<b>Source</b>	<b>Group Name</b>	<b>Priority</b>
1,1,1-Trichloroethane	Ashland	Chlorinated	1
1,1-Dichloroethane	Dow	Chlorinated	1
1,2,3-Trimethylbenzene	Dow		1
1,2-Dichloroethane	Dow		1
1,3-Butanediol	Dow		1
2-Butanol	Ashland	Alcohol	1
2-Ethyl-hexanol	Ashland	Alcohol	1
2-Ethylhexyl Acetate	Ashland	Esters	1
Acetaldehyde	Dow		1
Acetic Acid	Ashland & Dow	Inorganic Acids	1
Acetone	Shell & Ashland	Ketones	1
Aluminum Sulfate	Ashland	Metal Salts	1
Amyl Acetate (Primary)	Ashland	Esters	1
Benzophenone	Dow		1
Benzyl Acetate	Dow		1
Butyl Amine	Ashland	Amines	1
Butyraldehyde	Dow		1
Chloroform	Ashland	Chlorinated	1
Crude, Heavy	Dow		1

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<b>Chemical Name</b>	<b>Source</b>	<b>Group Name</b>	<b>Priority</b>
Crude, Typical	Dow		1
Cumene Hydroperoxide	Shell	Phenol Unit	1
Cyclohexanol	Ashland	Alcohol	1
Cyclohexanone	Ashland	Ketones	1
Cyclohexyl Amine	Ashland	Amines	1
Dibasic Ester	Ashland	Esters	1
Dibutyl Amine	Ashland	Amines	1
Diesel	Dow		1
Diethanolamine	Shell & Ashland	Amines	1
Diethylamine	Ashland & Dow	Amines	1
Diglycolamine	Shell	Olefins Unit	1
Diisobutyl Ketone	Ashland	Ketones	1
Diisopropyl Amine	Ashland	Amines	1
Diisopropylbenzene	Shell	Phenol Unit	1
Dimethyl Terephthalate	Dow		1
Dimethylamine	Dow		1
Dimethyldisulfide	Shell	Olefins Unit	1
Dimethylformamide	Ashland	Miscellaneous	1
Diphenyl Ether	Dow		1
Ethanol	Ashland & Dow	Alcohol	1
Ethyl Acetate	Ashland	Esters	1
Ethyl Amine (70%)	Ashland	Amines	1
Ethyl Chloride	Dow		1
Ethyl Propionate	Ashland	Esters	1
Ethylene Dichloride	Ashland	Chlorinated	1
Ethylidene Diacetate	Dow		1
Ferric Chloride	Ashland	Metal Salts	1

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<b>Chemical Name</b>	<b>Source</b>	<b>Group Name</b>	<b>Priority</b>
Formaldehyde, 100%	Dow		1
Fuel Gas	E2G		1
Furfurol	E2G		1
Gasoline	Dow		1
Glycol Ether	Ashland	Glycol Ethers	1
Hexylene Glycol	Shell & Ashland	Glycols	1
Hydrogen Peroxide	Ashland	Miscellaneous Inorganics	1
Isobutanol	Ashland	Alcohol	1
Isobutyl Acetate	Ashland	Esters	1
Isobutyl Isobutyrate	Ashland	Esters	1
Isophorone	Ashland	Ketones	1
Isopropanol	Ashland	Alcohol	1
Isopropyl Acetate	Ashland	Esters	1
Isopropyl Amine	Ashland	Amines	1
Kerosene	Dow		1
Methyl Acetate	Ashland	Esters	1
Methyl Amyl Alcohol	Ashland	Alcohol	1
Methyl Amyl Ketone	Ashland	Ketones	1
Methyl Benzoate	Dow		1
Methyl Chloride	Dow		1
Methyl Ethyl Ketone	Ashland	Ketones	1
Methyl Isoamyl Ketone	Ashland	Ketones	1
Methyl Isobutyl Ketone	Shell & Ashland	Ketones	1
Methyl Propyl Ketone	Ashland	Ketones	1
Methylacetylene	Shell	Olefins Unit	1
Methylene Chloride	Ashland	Chlorinated	1
Mineral Spirits	Ashland	Aliphatics	1

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<b>Chemical Name</b>	<b>Source</b>	<b>Group Name</b>	<b>Priority</b>
Monochlorobenzene	Ashland	Chlorinated	1
Morpholine	Ashland	Amines	1
N-Butanol	Dow	Alcohol	1
N-Butyl Acetate	Ashland & Dow	Esters	1
n-Butyl Propionate	Ashland	Esters	1
Nickel Fluoborate	Ashland	Metal Salts	1
Nitric Acid	Dow		1
n-Pentyl Propionate	Ashland	Esters	1
n-Propanol	Ashland	Alcohol	1
Orthodichlorobenzene	Ashland	Chlorinated	1
Perchloroethylene	Ashland	Chlorinated	1
Phenol	Shell & Dow	Phenol Unit	1
Piperazine 3%	Dow		1
Potassium Silicate Solution	Ashland	Silicates	1
Propylene Dichloride	Ashland	Chlorinated	1
p-Terphenyl	Dow		1
Sodium Hypochlorite	Ashland	Sodium Compounds	1
Sulfuric Acid	Shell & Dow	Phenol Unit	1
t-Butyl Acetate	Ashland	Esters	1
Tetrahydrofuran	Ashland	Miscellaneous	1
Tetrasodium Salt Solution (EDTA)	Ashland	Miscellaneous Inorganics	1
Tin Fluoborate	Ashland	Metal Salts	1
Trichloroethylene	Ashland	Chlorinated	1
Triethylene Tetramine	Ashland	Amines	1
Trimethylolpropane	Dow		1
Vinyl Acetate	Dow		1
Vinyl Chloride	Dow		1

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